

**What Is Claimed Is:**

1           1.    A level-shifting circuit, comprising:  
2           a level modulating circuit having an input terminal and an  
3           inverse input terminal for respectively receiving a  
4           complementary pair of small signals, and a first  
5           output terminal for outputting a voltage level in  
6           response to the complementary pair of small signals;  
7           and  
8           an enable circuit coupled to the first output terminal and  
9           making the first output terminal output a  
10          predetermined voltage level signal when receiving a  
11          disable signal.

1           2.    The level-shifting circuit as claimed in claim 1,  
2           wherein the enable circuit is a MOS transistor having a source  
3           and a drain coupled between an external level and the first  
4           output terminal, and a gate coupled to the disable signal.

1           3.    The level-shifting circuit as claimed in claim 2,  
2           wherein the enable circuit is a first PMOS transistor having the  
3           source coupled to a power source, and the drain coupled to the  
4           first output terminal.

1           4.    The level-shifting circuit as claimed in claim 2,  
2           wherein the enable circuit is a first NMOS transistor having the  
3           source coupled to a ground level, and the drain coupled to a  
4           second output terminal.

1           5.    The level-shifting circuit as claimed in claim 1,  
2           wherein the enable circuit further comprises a pair of second  
3           NMOS transistors having drains respectively coupled to the input  
4           terminal and the inverse input terminal, sources coupled to the

5 complementary pair of small signals, and gates coupled to the  
6 disable signal.

1 6. The level-shifting circuit as claimed in claim 4,  
2 wherein the enable circuit further comprises a pair of third NMOS  
3 transistors having drains respectively coupled to the input  
4 terminal and the inverse input terminal, sources coupled to the  
5 complementary pair of small signals, and gates coupled to the  
6 disable signal.

1 7. The level-shifting circuit as claimed in claim 6,  
2 wherein the enable circuit further comprises an inverter coupled  
3 between the gates of the first and third NMOS transistors.

1 8. The level-shifting circuit as claimed in claim 1,  
2 wherein the level modulating circuit comprises:

3 a first PMOS transistor having a first gate coupled to the  
4 input terminal, a first source coupled to a power  
5 source and a first drain as the second output  
6 terminal;

7 a second PMOS transistor having a second gate coupled to  
8 the reverse input terminal, a second source coupled  
9 to and a second drain as the first output terminal;

10 a third NMOS transistor having a third gate coupled to the  
11 power source, a third drain coupled to the first drain  
12 and a third source as the input terminal; and

13 a fourth NMOS transistor having a fourth gate coupled to  
14 the power source, a fourth drain coupled to the second  
15 drain and a fourth source as the inverse input  
16 terminal.

1 9. A level-shifting circuit, comprising:

2 a level modulating circuit having a first input terminal  
3 for receiving a reference signal and a second input  
4 terminal for receiving a modulating signal, and an  
5 output terminal for outputting a voltage level in  
6 response to the level of the modulating signal; and  
7 an enable circuit coupled to the output terminal and making  
8 the output terminal output a predetermined voltage  
9 level signal when receiving a disable signal.

1 10. The level-shifting circuit as claimed in claim 9,  
2 wherein the enable circuit is a thin film transistor (TFT) having  
3 a source and a drain coupled between an external level and the  
4 output terminal, and a gate coupled to the disable signal.

1 11. The level-shifting circuit as claimed in claim 9,  
2 wherein the enable circuit is a first P-type thin film transistor  
3 having the source coupled to a power source, and the drain  
4 coupled to the first output terminal.

1 12. The level-shifting circuit as claimed in claim 9,  
2 wherein the enable circuit is a first N-type thin film transistor  
3 having the source coupled to a ground level, and the drain  
4 coupled to a second output terminal.

1 13. The level-shifting circuit as claimed in claim 9,  
2 wherein the enable circuit further comprises a pair of second  
3 N-type thin film transistors having drains respectively coupled  
4 to the first and second input terminals, sources respectively  
5 receiving the reference signal and the modulating signal, and  
6 gates coupled to the disable signal.

1 14. The level-shifting circuit as claimed in claim 9,  
2 wherein the enable circuit further comprises a pair of third  
3 N-type thin film transistors having drains respectively coupled

4 to the first and second input terminals, sources respectively  
5 receiving the reference signal and the modulating signal, and  
6 gates coupled to the disable signal.

1 15. The level-shifting circuit as claimed in claim 9,  
2 wherein the enable circuit further comprises an inverter coupled  
3 between the gates of the first N-type thin film transistor and  
4 the third N-type thin film NMOS transistor.